



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,605	11/20/2000	Vladimir Matena	06502.0018-01	7197

22852 7590 02/09/2005

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

PICH, PONNOREAY

ART UNIT PAPER NUMBER

2135

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/849,605	Applicant(s) VLADIMIR MATENA	
	Examiner Ponnoreay Pich	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-26 have been considered and are pending. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Docketing

Please note that the application has been redocketed to a different examiner. Please refer all future communications regarding this application to the examiner of record, using the information supplied in the final section of the office action.

Response to Arguments

Applicants arguments filed on 8/6/2004 are persuasive and the examiner withdraws the 102(b) rejections used by the previous examiner. However, in regards to claims 1-26, new grounds of rejections have been made; see below. The applicant also indicated that he/she has attached Davis, R.J. VAXcluster Principles (Digital Press 1993) to the amendment submitted on 8/6/2004. The examiner does not see Davis's work among the submitted papers. The applicant is reminded that the examiner requires this reference that was incorporated by reference in the specification to completely determine the patentability of the current application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 7-8, 12 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2135

1. Claim 1 recites the limitation "the node" in line 5 and "the device" in line 5. There are insufficient antecedent basis for these limitations in the claim.
2. Claim 3 is dependant on claim 2. Claim 3 refers to a "step 3", which does not exist in claim 2.
3. Claim 7 recites the limitation "the resource" in line 2, "the system" in line 2, and "the failure" in line 10. There are insufficient antecedent basis for these limitations in the claim.
4. Claim 8 recites the limitation "said configuration value monitor module" in line 1. There is insufficient antecedent basis for this limitation in the claim. The examiner assumes the applicant meant "said configuration value module."
5. Claims 12 and 21 recite the limitation "said configuration module" in line 1 of each claim respectively. There is insufficient antecedent basis for this limitation in each claim. The examiner assumes the applicant meant "said configuration value module."

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 24-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 24-26 refer to "a computer data signal", which is non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 7-8, and 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughan (U.S. 4,800,590) in view of Frey et al (U.S. 5,416,921).

Claim 1:

Vaughan discloses a method for preventing access to a peripheral device by a processor-based node in a system comprising,

- (1) storing at the peripheral device a first unique value representing a first configuration of the system (col 3, lines 44-55);
 - (2) sending an access request from a node to a device, the request including a second unique value representing a second configuration of the system (col 3, lines 44-54);
 - (3) determining whether said first and second values are identical (col 3, lines 44-54);
 - (4) if the first and second values are identical, then executing the access request to the peripheral device (col 6, lines 55-65); and
- repeating steps (3) and (4) each time an access request is sent from the node to the device (col 4, lines 27-39).

Vaughan does not disclose the peripheral device being a shared peripheral device nor the system being a multinode system. The examiner has applied the broadest reasonable interpretation to this claim and has interpreted peripheral device to also include shared computers and servers. In light of this interpretation, the examiner would like to note that password authentication systems in which a request to access a server and determination of whether or not to permit access to the server by comparing the password sent with the access request with one stored in the server to see if the passwords were the same were well known in the art at the time the applicant's invention was made. Systems that are processor-based multinode systems with shared servers requiring password to access were also well known at the time the applicant's invention was made. Frey also discloses a shared peripheral device being used in a multinode system (col 7, line 49-col 8, line10). One of ordinary skill in the art would be motivated to combine the teachings of Vaughan and Frey as it would allow for a system such as the one disclosed by Frey to be more secure (Vaughan col 4, lines 28-39).

Claim 2:

Vaughan and Frey disclose all the limitations of claim 1. In addition, Vaughan discloses a method wherein:

- a. Said first value is generated utilizing at least in part information relating to a first time when the multinode system was in said first configuration (col 3, lines 44-54 and col 6, lines 33-44).

- b. Said second value is generated utilizing at least in part information relating to a second time when the multinode system was in second configuration (col 3, lines 44-54 and col 6, lines 33-44).

Claim 3:

Vaughan and Frey disclose all the limitations of claim 2. In addition, Vaughan discloses determining whether said first and second times are identical (col 3, line 66-col 4, line 44).

Claims 7 and 17:

Vaughan discloses an apparatus of claim 7 and a computer usable medium having computer readable code embodied therein as of claim 17 for preventing access to at least one peripheral resource by a processor-based node in a system, a resource being coupled to a system by a resource controller including a controller memory, the node on the system including a processor coupled to a node memory storing program modules configured to executing functions of the invention (col 5, lines 24-61), the apparatus and computer usable medium comprising:

- a. A configuration value module configured to generate a unique value and to store said unique value locally at the node on the system (col 3, lines 44-54).
- b. An access control module stored at said controller memory configured to block access requests by requesting node to said resource when the locally stored unique value at said requesting node does not equal the unique value stored at said resource controller (col 9, line 65-col 10, line 5).

Vaughan does not disclose the peripheral resource being a shared resource nor the system being a multinode system with a plurality of nodes. Vaughan also does not disclose:

- a. A membership monitor module configured to determine a membership list of the nodes, including said resource, on the system at predetermined times, including at least a time when the membership of the system changes.
- b. A resource manager module configured to determine when the resource is in a failed state and for communicating a failure of the resource to said membership monitor to indicate to the membership monitor to generate a new membership list.
- c. A configuration value module generating a unique value based upon said new membership list.

However, Frey discloses a peripheral resource being a shared resource and a multinode system with a plurality of nodes (col 7, line 49-col 8, line10). Further, Frey discloses a membership monitor module configured to determine a membership list of the nodes, including said resource on the system at predetermined times, including at least a time when the membership of the system changes (col 7, line 55-col 8, line 34). Frey also discloses a resource manager module configured to determine when the resource is in a failed state and for communicating a failure of the resource to said membership monitor to indicate to the membership monitor to generate a new membership list (col 8, lines 10-62 and col 23, line 37-col 24, line 26) and a configuration value module generating a unique value based upon said new

Art Unit: 2135

membership list (col 23, line 37-col 24, line 26). One of ordinary skill in the art at the time the applicant's invention was made would be motivated to combine Vaughan and Frey's teachings for the same reason as in claim 1.

Note that all the modules mentioned in the applicant's invention could be one module performing all the mentioned tasks, separate software modules, or the operating system itself. Software modules using an object-oriented approach were also well known in the art at the time of the applicant's invention. The modules themselves could be composed of sub-modules.

Claim 8:

Vaughan and Frey disclose all the limitations of claim 7. Vaughan does not disclose a configuration value monitor configured to determine said unique value based at least in part upon a time stamp indicating the time at which the corresponding membership list was generated. However, Frey discloses the configuration value monitor configured to determine said unique value based at least in part upon a time stamp indicating the time at which the corresponding membership list was generated (col 12, last paragraph and col 20, line 60-col 21, line 15). One of ordinary skill would be motivated to combine the teachings of Vaughan and Frey for the same reasons as claim 1.

Claims 10 and 19:

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does not disclose the membership monitor configured to execute independently of any action by said shared resource when said shared resource is in a failed state. However, Frey

discloses the membership monitor configured to execute independently of any action by said shared resource when said shared resource is in a failed state (col 7, line 55-col 8, line 34). One of ordinary skill would be motivated to combine the teachings of Vaughan and Frey for the same reasons as claim 1.

Claims 11 and 20:

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does not disclose, but Frey discloses the resource manager module configured to execute independently of any action by said shared resource when said shared resource is in a failed state (col 8, lines 35-62). One of ordinary skill would be motivated to combine the teachings of Vaughan and Frey for the same reasons as claim 1.

Claims 12, 18, and 21:

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does not disclose, but Frey discloses the configuration value module is configured to execute independently of any action by said shared resource when said resource is in a failed state (col 12, last paragraph and col 20, line 60-col 21, line 15). One of ordinary skill would be motivated to combine the teachings of Vaughan and Frey for the same reasons as claim 1.

Claims 13 and 22:

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does not disclose, but Frey discloses the access control module configured to execute independently of any action by said shared resource when said shared resource is in a failed state (col 7, lines 55-65).

Claim 14:

Vaughan discloses a computer usable medium having computer readable code embodied therein for preventing access to a peripheral device by a processor-based node system, the computer usable medium comprising:

- a. A storage module configured to store a first unique value representing a first configuration of the multinode system (col 3, lines 44-55).
- b. A reception module configured to receive access requests from a node to the shared peripheral device, each access request including a second unique value representing a second configuration of the multinode system (col 3, lines 44-54).
- c. A comparator module configured to determine, for each access request received, whether said first and second values are identical (col 3, lines 44-54).
- d. An execution module for executing each access request at the peripheral device, if the first and second values are identical (col 6, lines 55-65).

Vaughan does not disclose the peripheral resource being a shared resource nor the system being a multinode system. However, Frey discloses a peripheral resource being a shared resource and a multinode system (col 7, line 49-col 8, line10). One of ordinary skill would be motivated to combine Vaughan and Frey's teachings for the same reasons as claim 1.

Claim 15:

Vaughan and Frey disclose all the limitations of claim 14. In addition, Vaughan disclose the storage a computer usable medium, wherein said storage medium includes a submodule configured to generate said first value using information relating to a first time when the multinode system was in said first configuration (col 3, lines 44-54 and col 6, lines 33-44), and further comprising a module configured to generate said second value using information relating to a second time when the multinode system was in said second configuration (col 3, lines 44-54 and col 6, lines 33-44).

Claim 16:

Vaughan and Frey disclose all the limitations of claim 15. In addition, Vaughan discloses the comparator module configured to determine whether said first and second times are identical (col 6, lines 55-66).

2. Claims 4-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughan (U.S. 4,800,590) in view of Frey et al (U.S. 5,416,921) and Mann et al "An algorithm for Data Replication".

Claim 4:

Vaughan and Frey disclose all the limitations of claim 1. Further, Vaughan discloses said first and second generated values (col 3, lines 44-54). Neither Vaughan nor Frey discloses values generated based at least in part on epoch numbers generated by a membership protocol executing on a multinode system. However, Mann discloses values generated based at least in part on epoch numbers generated by a membership

Art Unit: 2135

protocol executing on a multinode system (page 12, paragraph 3-page 13, paragraph 1). One of ordinary skill would be motivated to combine Mann's teachings into the combination system of Vaughan and Frey as it would allow for replicating stored data on multiple server machines (Mann's abstract).

Claims 5 and 6:

Vaughan, Frey, and Mann disclose all the limitations of claim 4. Vaughan and Frey disclose all the limitations of claim 1. Further, Vaughan discloses said first and second generated values (col 3, lines 44-54). Neither Vaughan nor Frey disclose values generated based at least in part on respective membership sets of said multinode system generated by said membership protocol. However, Mann discloses values generated based at least in part on respective membership sets of said multinode system generated by said membership protocol (page 12, paragraph 3-page 13, paragraph 1). One of ordinary skill would be motivated to incorporate Mann's teachings into the combination system of Vaughan and Frey for the same reason as for claim 4.

Claim 9:

Vaughan and Frey disclose all the limitations of claim 7. Neither Vaughan nor Frey disclose said unique value is based at least in part upon an epoch number generated by a membership protocol module. However, Mann discloses said unique value is based at least in part upon an epoch number generated by a membership protocol module (page 12, paragraph 3-page 13, paragraph 1). One of ordinary skill

would be motivated to incorporate Mann's teachings into the combination system of Vaughan and Frey for the same reason as for claim 4.

3. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughan (U.S. 4,800,590) in view of Frey et al (U.S. 5,416,921) and Endicott et al (U.S. 5,404,525).

Claim 23:

Vaughan and Frey disclose all the limitations of claim 17. In addition, Vaughan discloses a configuration value module configured to generate a unique value based at least in part on a time value (col 3, lines 44-54). Vaughan does not disclose the configuration value module including a submodule nor does Vaughan disclose the unique value based at least in part upon a time stamp indicating the time at which the corresponding membership list was generated.

However, object-oriented programming was well known in the art at the time the applicant's invention was made as disclosed by Endicott (col 1, line 46-col 2, line 35). Further, Frey discloses the configuration value monitor configured to determine said unique value based at least in part upon a time stamp indicating the time at which the corresponding membership list was generated (col 12, last paragraph and col 20, line 60-col 21, line 15). One of ordinary skill would be motivated to combine the teachings of Vaughan and Frey for the same reasons as claim 1. One of ordinary skill would want to use a submodule (as taught by Endicott) in the system of Vaughan and Frey, as it

Art Unit: 2135

would lead to better encapsulation and reusability of the program components (Endicott col 1, lines 60-65).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Blandford (U.S. 6,470,449) discloses a time-stamped data storage.
2. Heer et al (U.S. 5,999,629) discloses a data encryption security module.
3. Kaufman et al (U.S. 5,491,752) discloses a password hashing algorithm.
4. Hartman, Jr. (U.S. 5,444,780) discloses a client/server timekeeping computer system.
5. Kaufman et al (U.S. 5,418,854) discloses a method of protecting passwords in a distributed data processing system and login authentication.

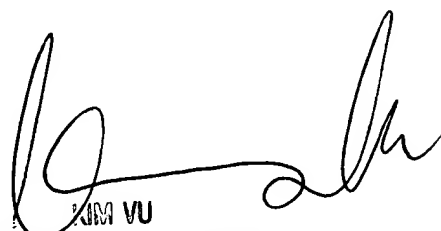
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 8:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2135

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PP



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 21